

# Thoughts on WinFS

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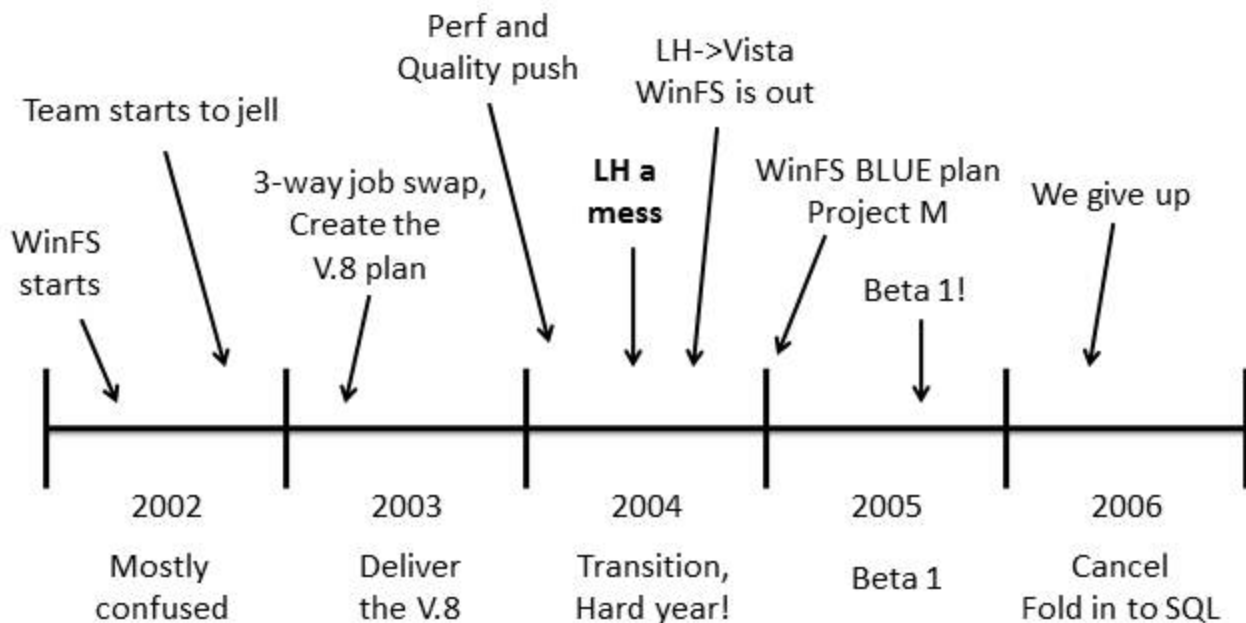
# Some Truths or Myths about WinFS

- WinFS caused Longhorn (LH) to be late
- WinFS got kicked out of LH
- WinFS had bad quality and perf
- The execs cancelled WinFS
- WinFS failed because of Win32 support
- Customers were confused and didn't want it
- We couldn't build it, too difficult
- Outlook couldn't build on it
- The technology/concepts have been dropped
- SQL org is now risk averse
- WinFS raided the SQL org for lots of folks

# What was WinFS?

- The vision:
  - *WinFS is the active storage platform for organizing, searching and sharing all data*
- New storage platform
  - Windows File System
  - File system and a database system combined (Win32 support)
  - Massive improvement in TCO (for a db)
- Synchronization
- Item data model
  - Complex objects, links, lists, etc
- Schemas
  - system/user defined and extensible
  - Custom app logic
- Search (full text and property)
- Rules (active pc)
- Shared data
  
- ***Goal: create a new ecosystem to revitalize the Windows platform***

# Overall schedule



# Clarifications

- Originally proposed Mighty Mouse (indexer)
  - Rejected by execs because not a platform
- Expected to “incubate” until around end of 2003
  - Steve wanted a good schedule at end of 2002
- We initiated the discussion about LH problems
  - 6 months to clean up? New code base.
  - LH screwed by Windows SPs (no one knew the state)
- The key meeting on schedule
  - Individual commits for end 2006, but no group commit for early 2007
  - Wisdom of crowd, no one believed the collective schedule
  - This lead to new Vista schedule
- WinFS opted out of LH based on...
  - Vista to be date driven
    - One more coding milestone, 2 betas (May, Oct), RTM May 2006
  - No managed code
  - Only two betas, we needed three since we were a new platform

# Clarifications cont.

- We helped craft the marketing message for LH to Vista
  - Had to play the “fall guy” so Vista would look ok
- After we were out of LH
  - Factored the bottom half of WinFS
    - CDM/CDP -> ADO.NET (Orcas)
  - Plan was to ship WinFS as an out-of-band component for OS
- The plan for Project M
  - Vista shell and new shell (Vista+1)
  - Validate WinFS and Avalon for Vista+1
  - M wanted to ship an app. Bitter relationship.
- Our decision to end WinFS as an OS component
  - March 2006 we really started to get anxious
  - SQL org was overloaded with Katmai, Orcas, WinFS
  - Execs preferred we continue and ship something
  - Sinofsky discussion
  - Roll it into SQL; controlled landing of people and technology

Lessons...

The Good, the Bad and the Ugly

# WinFS

- **Perfect Storm** of Software Projects
  - Inventing and incubating, no prior model (Not NT or SQL)
  - Instant team
  - Short schedule (Mighty Mouse, working code immediately)
  - Lots of executive oversight (SLT, SLTT and LHSLT ;-())
  - Legal oversight
  - Large breadth in the problem/solution space
  - Many customers, internal and external
  - Political jungle (schedule dependencies, software assets)
  - Huge Bet by the company (Linux)
  - Failed ~5 times before
  - SQL Server team hijacked
  - Part of the Longhorn Armada (not just our own ship)
- This is really freakin' ***HARD!!!***



# The Bad

- Instant team
- Vision was too broad
  - *WinFS is the active storage platform for organizing, searching and sharing all data*
  - Made it hard to layer the onion
- Too long a schedule
  - LH slipping allowed us to change things
- Too many smart, senior people
  - Culture of democracy, questioning
  - Needed faster decisions
- Who was the KEY customer?

# The Ugly

- Incubating while the company was bet on it
  - Underestimated the difficulty of the concepts
- Engineering environment was a disaster
  - Branches between dev div, windows, sql
- Get committed partners
  - Conflicts within the Shell team
  - Api/shell and store should have been together
- Don't let the execs be the GPMs
  - Too many different partners/requirements
- Didn't even have the SQL org aligned
  - In May 2003, "Stop chasing Oracle's taillights"
  - SQL GMs not aligned

# The Good

- Created friendships as well as working relationships
  - Crucial for the tough times, need the sounding board, manage stress
  - Remember 3-way job swap
- Attract great people
  - Got explorer DNA, pitched it during interviews
  - Overqualified down to lead level
  - Give them large responsibility and let them grow
  - Went thru a great battle, lots of maturing
- Diversity leads to innovation (not just database guys)
- Be overly transparent as leader
  - The leader needs to be in synch with the team
    - Weekly meetings established culture, info, status
  - Helped us get thru the LH knothole
  - Leaders actions are magnified 10x. Confident? Stressed?
- Optimistic, confident and persistent (can't fake this)
  - Delusional?

# The Good cont.

- No guilt. Put it behind you. Press on. One foot in front of the other.
- Definitely building a cathedral
- Feature teams
  - Strong test and pm orgs
- Built some great modular technologies
- Act in tough times. At LH end...
  - New data model mini-milestone, created Blue plan, carved off entities, focus on B1
- We did build it
  - Team pissed we didn't get to B2 to show everyone
  - At the same time, we needed a decision (org was overloaded)
- Very strong influence on SQL technologies, processes, people
- Effect on SQL strategy:
  - Not just a datanbase -> Storage platform

# Final Thoughts

- I could have done a much better job leading the project
  - Tactically we did a great job given our bizarre world (Shackleton)
  - Strategically
    - Do Shorthorn while we incubate
    - Start with a smaller team
    - Shell+WinFS as one team
    - Get requirements, then ignore the execs for 2-3 years
- Balancing V1 vs THE platform
- Incredible growth opportunity
  - Learned as much the last 5 years as my first 5 years
- Accountability???
- Would do it again
- Even with the outcome known at the start, I'd do it again!